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CASE REPORT

Cola Saves My Life: The Successful Treatment of Oesophageal Food Bolus Impaction with Cola Ingestion

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ABSTRACT

Oesophageal food bolus impaction, a serious emergency, requires immediate intervention to prevent complications, such as perforation or aspiration leading to respiratory distress. Severity varies based on factors such as the size of the ingested object, obstruction site, individual health, and the promptness of medical attention. In this report, we present the case of a middle-aged gentleman who presented to the emergency department with oesophageal food obstruction caused by a piece of lamb meat. Despite the initial unsuccessful attempts with first aid treatment, the patient experienced immediate relief of obstruction upon ingesting cola. This case highlights the potential use of cola in managing selected cases of oesophageal food impaction, offering a non-invasive alternative to oesophago-duodenoscopy. While cola emerged as a promising intervention in this case, its broader applicability and safety warrant further investigation through controlled trials. Establishing judicious cola use guidelines alongside traditional interventions can enhance patient care and safety.

INTRODUCTION

Oesophageal food bolus impaction is a frequently encountered scenario in the emergency department. In adults, it is predominantly unintentional, constituting approximately 95% of cases (Mosca et al., 2001). The presentation of this condition can vary significantly, ranging from individuals who recover without intervention to those

experiencing severe aspiration and imminent airway compromise leading to a peri-arrest state or oesophageal perforation. The management of this condition is diverse, and most of the oesophageal food bolus impaction relieves spontaneously (Chen & Beierle, 2001). Less than 20% necessitate endoscopy, and less than 1% undergo surgical intervention (Eisen et al., 2002). Traditional management strategies for oesophageal food bolus impaction involve the Heimlich manoeuvre, manual removal of foreign body, or endoscopic procedures such as oesophagoduodenoscopy. Here, we present an intriguing case in which cola consumption resulted in the immediate resolution of oesophageal food bolus impaction caused by a chunk of lamb meat.

CASE PRESENTATION

A 40-year-old gentleman with no prior medical history presented to the emergency department with food obstruction attributed to a 1x1 cm sized piece of lamb meat in his mid-oesophagus level. The patient had attempted various methods, including drinking water, juice, and consuming a banana, all of which induced vomiting but failed to dislodge the obstruction. First aid measures, including the Heimlich manoeuvre, proved ineffective in relieving the obstruction. Physical examination revealed no signs of airway distress. A plain radiograph showed no evidence of a bony foreign body obstruction in the digestive tract.

Following initial unsuccessful attempts to alleviate the obstruction, the medical team considered the administration of Glucagon and hyoscine butylbromide. Upon contacting the on-call gastroenterologist team, it was suggested to arrange an urgent oesophagogastroscopy procedure. However, before proceeding with these interventions, a trial of regular cola consumption was attempted. Remarkably, the patient reported immediate relief, with the oesophageal food obstruction being dislodged. Subsequent reassessment confirmed the complete resolution of the food obstruction in the oesophagus, resulting in a significant improvement in the patient's condition. Consequently, the patient was discharged home.

DISCUSSION

The successful resolution of acute oesophageal food impaction with cola consumption in our patient raises several interesting considerations and prompts further discussion. Acute oesophageal food bolus impaction can potentially be as serious emergency that requires immediate intervention, especially if it is associated with complications such as perforation or severe respiratory distress if aspirated. The traditional approach to managing acute oesophageal food impaction involves techniques such as the Heimlich manoeuvre, manual foreign body removal, or endoscopic procedures like oesophago-duodenoscopy. The preferred method for addressing this situation is endoscopic removal, which boasts a success rate exceeding 90% and a minimal complication rate < 5% (Aiolfi et al., 2018; Huang et al., 2018). However, in this case, the use of cola as an alternative intervention proved effective in relieving the food obstruction in the oesophagus.

Cola, a carbonated beverage containing carbon dioxide and other ingredients, has been suggested as a potential remedy for the dissolution of certain types of gastrointestinal obstructions. Several case reports and studies have explored the use of cola in managing chronic gastrointestinal obstructions (Karanjia & Rees, 1993). The selection of cola in this case report is based on its well-known effervescent properties and anecdotal evidence suggesting its efficacy in dislodging esophageal food impactions (David et al., 2019; Lee & Anderson, 2005). Baerends et al.'s (2019) retrospective study found that all patients with oesophageal food impactions were successfully treated with cola without significant adverse events. Carbonation creates gas bubbles, which can create pressure and aid in pushing or dislodging

the obstructing material. Furthermore, the acidic nature of cola may also help soften the bolus of food material, making it easier to pass through the oesophagus. Additionally, cola may stimulate peristaltic activity, promoting movement and clearance of the obstruction, although an in vitro study showed that Coca-Cola® did not induce significant movement of pieces of cooked chicken tightly squeezed in graduated syringes.

Shukla et al. (2012) conducted a study to investigate the effect of carbonated beverage (Pepsi[Pepsico India Ltd]) on transient lower esophageal sphincter relaxation (tLESR) and lower esophageal sphincter (LES) pressure in healthy subjects, revealing a significant increase in tLESR and decrease in LES pressure following ingestion. While other carbonated beverages may possess similar properties, the widespread availability and familiarity of cola among healthcare providers may have influenced its specific use in this context. Further research comparing the effectiveness of different carbonated beverages in managing esophageal food impactions could provide valuable insights.

However, upon conducting a comprehensive review of the management of oesophageal soft food obstruction (OSFBO), it becomes apparent that cola therapy does not yet represent the standard of care in the guideline due to a lack of strong evidence. Additionally, the use of hyoscine butylbromide for OSFBO appears to be based on a misinterpretation of a textbook reference. In contrast, when dealing with oesophageal food bolus impaction, it is worth noting that glucagon stands out as a cost-effective initial strategy (Haas et al., 2016). While surgical removal of OSFBO can be effective, it does carry potential risks. Nevertheless, emerging evidence suggests that surgical intervention within 24 hours of onset may be justified to proactively mitigate potential complications stemming from the initial obstruction.

Based on our observations from this case, we conclude that cola offers potential as a cost-saving, life-saving effective, and widely available over-the-counter treatment for dislodging acute oesophageal food obstructions. Its use should be tailored to individual patient factors, including obstruction location and risks. While suitable for conscious patients with intact gag reflexes, cola therapy is not universally applicable and should be supplemented with traditional interventions as needed. Further research, particularly randomized controlled trials, is essential to assess cola's safety, efficacy, and broader utility in managing oesophageal food obstruction. Such studies would enhance our understanding of its effectiveness, obstruction resolution rates, complication rates, and patient satisfaction.

CONCLUSION

In conclusion, the successful resolution of oesophageal food impaction in our patient with cola consumption underscores the potential role of cola as a non-invasive management option. Cola's unique effervescent properties, acidity, increase in tLESR and decrease in LES pressure capabilities may contribute to the dislodging of obstructing materials. However, further research is needed to establish its safety, efficacy, and applicability of cola in a wider range of food obstruction cases in the oesophagus. Clinicians should exercise discretion, considering individual patient characteristics, when contemplating cola as an alternative intervention. It is important to recognize that cola should not replace immediate life-saving measures when necessary, such as in unresponsive patients or when cola intervention is unsuitable.

CONFLICT INTEREST

The authors don't have any conflict of interest to declare.

CONSENT

The patient has given the written consent for publication.

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